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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GARCIA, ERNESTO

ART UNIT PAPER NUMBER

3679

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/303,791

Applicant(s)

JOHNSON, RORY MATTHEW

Examiner

Ernesto Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sealing end (claim 11, line 10) and "the annular upturned edge" (claim 11) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: the specification contains numerous typing errors that clutter the specification and make some words incomplete. Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a boot is non-convoluted" (claim 1), "an annular upturned

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member" (claim 1), "an annular upturned edge", and "the annular upturned edge having a plurality of radially distributed apertures" (claim 11) are not provided in the specification.

Claim Objections

Claim 11 is objected to because of the following informalities:

regarding claim 11, the limitation "smaller-diameter" in lines 7 and 13 should be --small-diameter--; and the limitation "larger-diameter" in line 8 should be --large-diameter--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al., 5,707,066, in view of Welschof et al., 4,747,805.

Regarding claim 1, Sugiura et al. disclose a constant velocity universal joint boot comprising a cylindrical neck member **3** and an annular upturned member **A2**. The cylindrical neck member **3** is at one end **A6**. The annular upturned member **A2** is at another end **A7**, defines a longitudinal axis **x**, and includes a crimping lip **6**. The boot is non-convoluted. However, the crimping lip **6** has no radially distributed apertures **2e** oriented parallel to the longitudinal axis **x**. Welschof et al. teach in Figure 4 a crimping lip **2d** having radially distributed apertures **2e** oriented parallel to a longitudinal axis **1c** for increasing the resiliency of the boot (col. 3, lines 62-68). Therefore, as taught by Welschof et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the radially distributed apertures on a crimping lip to increase resiliency of a boot.

Regarding claim 2, Welschof discloses the apertures **2e** are equally circumferentially spaced apart holes.

Regarding claim 3, Welschof discloses the apertures **2e** are equally circumferentially spaced apart radially distributed cut-outs.

Regarding claim 4, Sugiura discloses the annular member **2** is formed of a thermoplastic material (col. 5, lines 3-14).

Regarding claim 8, Sugiura et al. disclose a constant velocity universal joint assembly comprising a constant velocity universal joint **41,43-45** having an outer race **41**, a boot-can **9**, and a non-convoluted thermoplastic rolling-diaphragm boot **2**. The boot-can **9** has a first end **20** and a second flanged end **18** spaced apart from the first end **20** and the outer race **41**. The boot **2** has a crimping lip **6** received by the second flanged end **18**. However, Sugiura et al. fail to disclose radially distributed apertures on the crimping lip **6**. Welschof et al. teach in Figure 4 a crimping lip **2d** having radially distributed apertures **2e** for increasing resiliency of the boot (col. 3, lines 62-68). Therefore, as taught by Welschof et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the radially distributed apertures on a crimping lip to increase resiliency of a boot.

Regarding claim 11, Sugiura et al. disclose a constant velocity universal joint and propeller shaft assembly comprising a propeller shaft **21**, a constant velocity universal joint **41,43-45**, a boot-can **9**, and a non-convoluted thermoplastic rolling-diaphragm boot **2**. The constant velocity universal joint **41,43-45** having an outer race **41** having a first face **A13**, a boot-can **9**, The boot-can **9** has a large-diameter end **20** and a small-diameter flanged end **18**. The boot **2** has a sealing end **5**, a tubular stem portion **8**, and an annular upturned edge **A14** crimpingly affixed to the small-diameter flanged end **18**. The sealing end **5** cooperates with the propeller shaft **21**. However, Sugiura et al. fail to disclose radially distributed apertures on the annular upturned edge **A14**. Welschof et al. teach in Figure 4 an annular upturned edge **2d** having radially distributed apertures

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2e for increasing resiliency of the boot (col. 3, lines 62-68). Therefore, as taught by Welschof et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the radially distributed apertures on an annular upturned edge to increase resiliency of a boot.

Regarding claims 9 and 12, the radially distributed apertures **2e** comprise radially distributed holes.

Regarding claims 10 and 13, the radially distributed apertures **2e** comprise radially distributed cut-outs.

Response to Arguments

Applicant's arguments with respect to claims 1-4 and 8-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.


Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3600

E.G.

January 23, 2003

Attachment: one marked-up copy of Sugiura et al., 5,707,066.

Fig. 2

